

REMARKS

Reconsideration of the present application is respectfully requested. The Examiner has imposed numerous rejections of the claims based upon a variety of prior art references. The rejections under 35 U.S.C. § 102 (b) are set forth below:

Claims 43-48, 51-53, 55-57, 59-61 rejected under 35 U.S.C. §102(b) as being anticipated by Chen et al (U.S. patent 60/18033), herein Chen.

Claims 43, 45, 49 and 52 are rejected under 35 U.S.C. §102(b) as being anticipated by Onwumere et al (U.S. patent 5,591,210), herein Onwumere.

Claims 43-45 rejected under 35 U.S.C. §102(b) as being anticipated by Kobayashi et al (U.S. patent 6,207,762), herein Kobayashi.

Claims 43-45 rejected under 35 U.S.C. §102(b) as being anticipated by Takao et al (JP publication 11-035675), herein Takao.

Claims 43-45 rejected under 35 U.S.C. §102(b) as being anticipated by Chino et al (U.S. patent 6,746,562 and JP 2002-2060422), herein Chino.

The applicants have carefully studied the references and grounds of rejection conclude that biodegradable resins containing thermo-reversible cross-linked (TRSL) structures that have Diels-Alder type functional groups selected from the group consisting of alkenyl groups and groups having conjugated double bonds are not disclosed in the references cited by the examiner, and the references, when combined, do not, in an obvious manner, suggest the same to a person of ordinary skill in the art. Accordingly, it is submitted that the rejections of the claims are traversed for these reasons. In the applicants' response filed in September 2007, the subject matter claimed herein was directed to biodegradable resins containing a covalent bond formed by

a Diels-Alder ("DA") reaction. With this in mind, it would appear to us that the examiner's continued reliance upon Onwumere, Kobayashi, and Takao is misplaced as we these references simply do not teach biodegradable resins that include covalent bonds formed by DA reactants.

Chen Rejection:

Chen is directed to thermal-reversible saccharide gels. Specifically, Chen discloses saccharides that may be linked to conjugated substituted dienes. It is our view that Chen, in failing to disclose a biodegradable *resin*, which is the subject matter of the present invention teaches something fundamentally different from the present invention. Furthermore, the applicant submits that the gels of Chen are not thermoreversibly cleaved. Figure 1 of Chen shows chemical reactions in which gels can be synthesized. Figure 12 of Chen shows polymer gels that can be thermoreversibly swollen and shrunk. If the linkage of the polymer gel were cleaved, then the polymer gels would be dispersed in the solvent, thereby never shrinking. Thus the linkage of the polymer gel is not, as a practical matter, thermoreversibly cleaved. Accordingly, the present application discloses over Chen for this additional reason.

Onwumere Rejection:

The examiner's reliance on this reference appears to be misplaced. As we understand the reference, no Diels-Alder type group is included in the thermally reversible polymer.

Kobavashi Rejection:

The examiner's reliance on this reference appears to be misplaced. As we understand the reference, no Diels-Alder type group is included in the thermally reversible polymer.

Takao Rejection:

The examiner's reliance on this reference appears to be misplaced. As we understand the reference, no Diels-Alder type group is included in the thermally reversible polymer.

Chino Rejection:

Chino is cited to support 102(b) rejection of claims 43-45. Chino teaches thermal reversible cross-linkable elastomers. The applicants are of the position that Chino does not disclose a biodegradable resin. As the rubbers and elastomers disclosed by Chino are used in heavy industrial applications such as tires, and in other components used in automobiles, where the use of biodegradable materials in an extreme high heat environment would not be acceptable, as the high heat would bring about degradation and chemical bond breaking. Accordingly, the applicant does not consider Chino as being directed to thermoreversible resins.

Wherefore, based upon the foregoing, it is respectfully submitted that the present application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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